

# NATIONAL RADIOTHERAPY AND NUCLEAR MEDICINE NETWORK (GHA/6/009) E2

## CORE FINANCING

YEAR	Experts		Equipment	Fellowships		Scientific Visits		Training	Sub-contracts	Misc. Comp.	Total US \$
	m/d	US \$	US \$	m/d	US \$	m/d	US \$	US \$	US \$	US \$	
1995	-	-	-	60/0	198,000	-	-	-	-	-	198,000
1996	-	-	-	96/0	331,200	-	-	-	-	-	331,200
1997	-	-	-	33/0	118,800	-	-	-	-	-	118,800

## FOOTNOTE a/ FINANCING

YEAR	Experts		Equipment	Fellowships		Scientific Visits		Training	Sub-contracts	Misc. Comp.	Total US \$
	m/d	US \$	US \$	m/d	US \$	m/d	US \$	US \$	US \$	US \$	
1995	3/0	37,800	540,000	-	-	-	-	-	-	-	577,800
1996	4/0	52,800	750,000	-	-	-	-	-	-	-	802,800
1997	11/0	153,450	960,000	-	-	-	-	-	-	-	1,113,450
1998	9/0	132,300	-	-	-	-	-	-	-	-	132,300

First Year Approved: 94

Total expenditure to 30 September 1994:

\$99,857 (TACF)

**OBJECTIVES:** To establish a national network of brachytherapy, teletherapy and nuclear medicine services in Ghana based on major centres in hospitals in Accra, Kumasi and Tamale.

**BACKGROUND:** The incidence of cancer is high in Ghana and many other developing countries in Africa, but facilities for diagnosis and treatment, including radiotherapy and nuclear medicine, are generally extremely limited in the region. Only one hospital in Ghana currently provides brachytherapy, and only one hospital has an operational radioimmunoassay (RIA) laboratory. Teletherapy is not available at all. This lack of basic capabilities in cancer treatment is of particular concern in the case of cancers that affect women, such as cancer of the breast and cervix, and other treatable cancers such as those of the head and neck. A national network of brachytherapy and teletherapy services is proposed. These facilities will be established at Korle Bu Teaching Hospital, Accra, at Komfu Anokye Hospital, Kumasi, and at the Government Hospital, Tamale. The centres are geographically distributed south to north in the centre of the country, and will serve not only all regions of Ghana but also neighboring countries such as Togo, Côte d'Ivoire and Burkina Faso. It is essential that the radiotherapy service be provided with supporting nuclear medicine facilities that would confirm the initial diagnosis of cancer and would essentially monitor responses to the treatment given. Such a facility exists at the Korle Bu Teaching Hospital, where a RIA laboratory capable of carrying out assays for the relevant analytes (e.g. tumour-associated antigens) has been established with Agency support. It is adequately equipped, with trained staff, and its in-vivo nuclear medicine capabilities have also been strengthened by provision of a gamma camera for tests contributing to the diagnosis and management of cancer.

**PROJECT PLAN:** Training in radiotherapy, medical physics, radiography and support services such as nursing will be provided to persons specifically recruited for positions in the three hospitals. An expert mission will review several institutions with established training programmes in radiotherapy and related fields before selecting one to be used for this project. During the first stage of the project, brachytherapy services will be established in all three hospitals, and teletherapy services will be established at Korle Bu Teaching Hospital. Teletherapy facilities will be added at Komfu Anokye Hospital, Kumasi, in the second stage and to the Government Hospital, Tamale, in the final stage. Collaboration with the World Health Organization in carrying out this project is intended, and discussions have been initiated. A national steering committee will supervise project implementation.

**NATIONAL COMMITMENT:** The Government will make available appropriate facilities for radiotherapy treatment and for nuclear medicine laboratories. This will include making necessary modifications to existing facilities at Korle Bu Hospital and acquiring or building new facilities at the other two centres. The Government will also recruit and employ all necessary staff, including those required for equipment maintenance, and provide all other operating costs for all three centres.

**AGENCY INPUT:** Expert services in infrastructure planning and facility layout, radiotherapy and RIA brachytherapy and teletherapy machines and equipment needed for basic nuclear medicine laboratories; training in radiotherapy, medical physics, radiography and support services.

**IMPACT:** The primary impact of the project will be in Ghana, where cancer treatment which is currently unavailable will become available in all major regions of the country. RIA facilities will also be established and will provide additional nuclear medicine services. The project will serve as an example of how a strong government commitment, public support, and assistance from the Agency can be mobilized to make benefits of nuclear technology in medicine directly available to the general population of Member States.